Claudiu-Raul Buduleci

Date of birth: 26/09/1990 | **Nationality:** Romanian | **Gender:** Male | **Phone number:**

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Address: 12, Democrației, 550118, Sibiu, Romania (Home)

WORK EXPERIENCE

01/01/2024 – CURRENT Sibiu, Romania
TECHNICAL LEADER CONTINENTAL AUTOMOTIVE

- Leading the development of novel software architectures for future electronic brake products.
- World wide coordination of the software architects.
- Research in new automotive technologies

09/2013 – CURRENT Sibiu, Romania
EXTERNAL COLLABORATOR "LUCIAN BLAGA" UNIVERSITY

Teaching activities of the following laboratory classes:
- Microprocessor Architecture
- Systems with Microprocessors

08/2017 – 31/12/2024 Sibiu, Romania
TEAM LEADER CONTINENTAL AUTOMOTIVE

- Leading the Actuators, Sensors, Error Management and Software Architecture team (15 members)
- Keeping up to date the used processes and methods according to the latest industrial trends
- Coordinating software architects
- Research in new automotive technologies

06/2015 – 09/2017 Sibiu, Romania
SOFTWARE ARCHITECT CONTINENTAL AUTOMOTIVE

- Develop embedded software architectures for automotive industry
- Research in new automotive technologies

06/2013 – 07/2015 Sibiu, Romania
SOFTWARE DEVELOPER CONTINENTAL AUTOMOTIVE

- Develop embedded software components for automotive industry
- Research in new automotive technologies

05/2012 – 10/2012 Eindhoven, Netherlands
INTERN PHILIPS

- Research in clinical guideline software solutions for monitoring remote patients
- Implement a clinical guideline web application prototype

EDUCATION AND TRAINING

2019 – CURRENT
PHD STUDENT "Lucian Blaga" University

Field of study Computers and Information Technology |

Thesis "Anticipative and Predictive Techniques in Multicore Microprocessors"

2012 – 2015 Sibiu, Romania
MASTER'S DEGREE "Lucian Blaga" University

Embedded Systems

"4D – Multi-Objective Optimization of Sniper Simulator (multicore/manycore)"
   • Enhance the multi-core/many-core simulator Sniper with thermal analysis using HotSpot
   • Integrate Sniper and HotSpot simulators in a 4D ADSE process using FADSE

2008 – 2013 Sibiu, Romania
BACHELOR'S DEGREE "Lucian Blaga" University

Computers and Information Technology

"Considerations on processing performance, energy and thermal characteristics of a superscalar microarchitecture"
   • Thermal characteristics study of a microarchitecture with a selective value predictor
   • Considerations of pressure reduction over the instruction queue

2004 – 2009 Sibiu, Romania
GENERAL THEORETICAL KNOWLEDGE "Onisifor Ghibu" High School

Mathematics-Informatics

JOB-RELATED SKILLS

Technical

   • Embedded Software Development (V-Model, A-SPICE, Embedded C, Software Modelling, Automotive Safety, AUTOSAR)
   • Software Architecture (developing and coordinating)
   • Good knowledge of microprocessors, microcontrollers and computer architecture

Organizational

   • Leadership, teamwork and planning skills gained from the projects I have participated, the teams that I have coordinated, experience in international companies and academic involvement.
   • Mentoring and Coaching Skills

Communication and interpersonal

   • Sociable, can easily integrate in existing social collectives.

LANGUAGE SKILLS

Mother tongue(s):   **ROMANIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C1	C1	C1	C1	C1
GERMAN	A1	A1	A1	A1	A1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

PUBLICATIONS

Publications

- **C. Buduleci**, A. Gellert, A. Florea, and R. Brad, "Improving Multicore Architectures by Selective Value Prediction of High-Latency Arithmetic Instructions," *Adv. Electr. Comp. Eng.*, vol. 24, no. 2, pp. 61–72, 2024, doi: 10.4316/AECE. 2024.02007.

- **C. Buduleci**, A. Gellert, A. Florea, and R. Brad, "Architectural and Technological Approaches for Efficient Energy Management in Multicore Processors," *Computers*, vol. 13, no. 4, p. 84, Mar. 2024, doi: 10.3390/ computers13040084.

- **C. Buduleci,** A. Gellert, and A. Florea, "Selective High-Latency Arithmetic Instruction Reuse in Multicore Processors," in *2023 27th International Conference on System Theory, Control and Computing (ICSTCC)*, Timisoara, Romania: IEEE, Oct. 2023, pp. 410–415. doi: 10.1109/ICSTCC59206.2023.10308483. **(Best Paper Award)**

- **C. Buduleci**, A. Gellert, A. Florea, and A. Matei, "Extending Sniper with Support to Access Operand Values: A Case Study on Reusability Measurement," in *2022 23rd International Carpathian Control Conference (ICCC)*, Sinaia, Romania: IEEE, May 2022, pp. 70–75. doi: 10.1109/ICCC54292.2022.9805869.

- **C. Buduleci**, A. Gellert, A. Florea, R. Chis, and R. Brad, "Multi-Objective Optimization of Speculative and Anticipative Multi-Core Architectures," in *Advanced Computer Architecture and Compilation for High-performance Embedded Systems*, Fiuggi, Italy: HiPEAC, 2020, pp. 11–14.

- R. Chis, A. Florea, **C. Buduleci**, and L. Vintan, "Multi-Objective Optimization for an Enhanced Multi-Core SNIPER Simulator," Proceedings of The Romanian Academy, Series A: Mathematics, Physics, Technical Sciences, Information Science, vol. 19, no. 1, pp. 85–93, Mar. 2018.

- A. Butean, A. David, **C. Buduleci** and A. Daian, "Auxilum Medicine: A Cloud Based Platform for Real-Time Monitoring Medical Devices," *2015 20th International Conference on Control Systems and Computer Science*, Bucharest, Romania, 2015, pp. 874-879, doi: 10.1109/CSCS.2015.135.

- A. Florea, **C. Buduleci**, R. Chis, A. Gellert, and L. Vintan, "Enhancing the Sniper simulator with thermal measurement," in 2014 18th International Conference on System Theory, Control and Computing (ICSTCC), Sinaia: IEEE, Oct. 2014, pp. 31–36. doi: 10.1109/ICSTCC.2014.6982386.

HONOURS AND AWARDS

Honours and awards

- **Youngest participant** at 18-th International Conference on "System Theory, Control and Computing" (ICSTCC 2014), Regular Session FrA24: Hardware Design, Sinaia, România, 17-19 October, 2014.
- Competitor in "Imagine Cup" competition with the project "Auxilum Medicine – Real time monitoring solution for hospital patients" organized by Microsoft, **world semifinalist** in Windows Azure challenge (2012).

- **Winner** of "Hardware and Software Engineering 2011" competition with the project "Design and implementation of an obstacle avoiding vehicle system" (2011).

- Competitor in Sibiu Technical Competition 2011 "Design and implementation of obstacles avoiding vehicles", rewarded with "The most eco auto vehicle" title (2011)**.**